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RATNERPRESTIA P O BOX 980 VALLEY FORGE, PA 19482-0980			WOZNIAK, JAMES S	
			ART UNIT	PAPER NUMBER
			2655	
DATE MAILED: 12/13/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/997,391

Applicant(s)

NAIMPALLY ET AL.

Examiner

James S. Wozniak

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/30/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1 and 6** are rejected under 35 U.S.C. 102(e) as being anticipated by Miyashita et al (*U.S. Patent: 6,289,085*).

With respect to **Claim 1**, Miyashita discloses:

(a) Storing text files in a database at the remote location (*electronic mail database, Col. 16, Lines 52-59*);

(b) Converting, at the remote location, the text files stored in step (a) into speech files (*Col. 17, Lines 4-8*);

(c) Receiving a request for a portion of the speech files converted in step (b) (*requested reading of an email, Col. 17, Lines 40-55*);

(d) Transmitting to the information appliance the portion of the speech files requested in step (c) (*Col. 17, Lines 9-22*); and

(e) Receiving and presenting the speech files transmitted in step (d) through audio speakers (*telephone output of a speech signal, Col. 18, Lines 3-5*).

With respect to **Claim 6**, Miyashita recites:

Receiving a selection of one of multiple voice personalities, and converting the text files into speech files using the selected voice personality (*Col. 7, Lines 37-41*).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 2-4, 11, 13, and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita et al in view of Hong et al (*U.S. Patent: 5,737,030*).

With respect to **Claim 2**, Miyashita teaches the method for performing text-to-speech conversion at a server and transmitting the converted speech to a terminal device, as applied to Claim 1. Miyashita does not specifically suggest method use in an EPG application, however Hong discloses:

Step (e) includes receiving and presenting speech files of one of electronic program guide (EPG) information, weather information and news information (*providing an audio representation of program guide information, Col. 7, Lines 1-16*).

Miyashita and Hong are analogous art because they are from a similar field of endeavor in audio signal processing. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Miyashita with the method of providing

an audio representation of EPG data as taught by Hong to provide illiterate or vision impaired individuals with a means of accessing television program information (*Hong, Col. 2, Lines 40-43*).

With respect to **Claim 3**, Miyashita teaches the method and corresponding steps for performing text-to-speech conversion at a server and transmitting the converted speech information to a terminal device upon a user request, as applied to Claim 1, while Hong teaches the use of speech synthesis in an EPG application as applied to Claim 2. Miyashita does not teach the additional steps of receiving a page location indication and transmitting speech data based upon the location, however Hong recites:

(f) Receiving an indication of a location on the page of text (*position information and cursor, Col. 4, Line 55- Col. 5, Line 14, Col. 6, Line 40- Col. 7, Line 16, and Fig. 5*); and

(g) Transmitting a portion of the EPG speech files corresponding to the received location indication (audio information corresponding to a program highlighted by a cursor, *Col. 4, Line 55- Col. 5, Line 14, Col. 6, Line 40- Col. 7, Line 16, and Fig. 5*).

Hong also discloses the ability to display EPG text as per Fig. 5.

Miyashita and Hong are analogous art because they are from a similar field of endeavor in audio signal processing. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Miyashita with the steps of receiving a page location indication and receiving speech data based upon the location as taught by Hong in order to provide an illiterate or vision impaired individual with program specific audio information (*Hong, Col. 2, Lines 40-43*).

With respect to **Claim 4**, Hong additionally discloses:

(f) Includes receiving an indication of a location in the grid; and step (g) includes first transmitting speech files of the at least one date, multiple channels and multiple times and then separately transmitting speech files of the legend in the grid location indicated in step (f) (*cursor, date, channel, and time, Fig. 5, and Col. 4, Line 55- Col. 5, Line 14, Col. 6, Line 40- Col. 7, Line 16*).

Miyashita and Hong are analogous art because they are from a similar field of endeavor in audio signal processing. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Miyashita with the means for receiving an indication of a grid location and separately transmitting speech files corresponding to each grid location as taught by Hong in order to allow an illiterate or visually impaired user with grid information through a comprehensible audio means (*Hong, Col. 2, Lines 40-43*).

With respect to **Claim 11**, Miyashita discloses:

(a) Storing text files in a database at the remote location (*electronic mail database, Col. 16, Lines 52-59*);

(b) Converting, at the remote location, the text files stored in step (a) into audio files (*Col. 17, Lines 4-8*);

(c) Receiving a request for a portion of the speech files converted in step (b) (*requested reading of an email, Col. 17, Lines 40-55*);

(d) Transmitting to the information appliance the portion of the audio files requested in step (c) (*Col. 17, Lines 9-22*); and

(e) Receiving and presenting the speech files transmitted in step (d) through audio speakers (*telephone output of a speech signal, Col. 18, Lines 3-5*).

Although Miyashita teaches a system featuring similar functionality to the presently claimed invention, Miyashita does not specifically suggest method use in an EPG application, however Hong teaches providing an audio representation of program guide information (*Col. 7, Lines 1-16*). Hong also teaches the use of a set top box for receiving such EPG information (*Col. 7, Lines 17-21*).

Miyashita and Hong are analogous art because they are from a similar field of endeavor in audio signal processing. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Miyashita with the method of providing an audio representation of EPG data as taught by Hong to provide illiterate or vision impaired individuals with a means of accessing television program information (*Hong, Col. 2, Lines 40-43*).

With respect to **Claim 13**, Hong teaches the EPG speech data corresponding to a grid position as applied to Claim 4, and Miyashita and Hong are obvious in combination for the reasons given with respect to Claim 4. Also, it would be inherent that a speech file would be paused upon completing program information output and that additional program information supplied in response to a change in cursor position, since the audio EPG information is output upon changing a cursor position (*Hong, Col. 4, Line 55- Col. 5, Line 14, Col. 6, Line 40- Col. 7, Line 16*), thus providing the user with instant program information (*Hong, Col. 7, Lines 29-35*).

With respect to **Claim 14**, Hong further discloses:

Selecting the channel for one of listening and viewing (*Col. 4, Line 43*).

Miyashita and Hong are analogous art because they are from a similar field of endeavor in audio signal processing. Thus, it would have been obvious to a person of ordinary skill in the

art, at the time of invention, to modify the teachings of Miyashita with the means of selecting a channel for listening and viewing as taught by Hong, in order to allow an illiterate or visually impaired user to see a selected program in detail (*Hong, Col. 7, Lines 23-35*).

5. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita et al in view of Oh (*U.S. Patent: 6,141,642*).

With respect to **Claim 5**, Miyashita teaches the method for performing text-to-speech conversion at a server and transmitting the converted speech to a terminal device, as applied to Claim 1. Although Miyashita discloses performing the text-to-speech conversion for multiple languages (Col. 7, Lines 30-35), the use of separate synthesizers is not specifically suggested, however Oh shows:

Converting the text files into speech files using a first text-to-speech (TTS) synthesizer and a second TTS synthesizer, whereby the first TTS synthesizer and the second TTS synthesizer use different languages (*Fig. 2, Elements 212 and 214*).

Miyashita and Oh are analogous art because they are from a similar field of endeavor in speech synthesis. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Miyashita with the use of multiple TTS synthesizers corresponding to different language as taught by Oh in order to provide text-to-speech synthesis for text that appears in multiple languages (*Oh, Col. 1, Lines 49-52*).

6. **Claims 7, 8, and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita et al in view of Houser et al (*U.S. Patent: 5,774,859*).



With respect to **Claim 7**, Miyashita teaches the means for presenting synthesized speech information upon a user request, as applied to Claim 1. Miyashita does not teach saving audio files at a local device, however, Houser discloses:

Step (e) includes storing received speech files in a memory device of the information appliance (*periodically updating and storing EPG information, Col. 23, Lines 7-37, which includes phonemic data, Col. 29, Lines 23-49*).

Miyashita and Houser are analogous art because they are from a similar field of endeavor in text-to-speech conversion. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Miyashita with the means for saving audio files for future access at a local device as taught by Houser in order to conserve network bandwidth as a result of not having to repeatedly download synthesized speech data upon a user request of program information.

With respect to **Claim 8**, Miyashita teaches the method for performing text-to-speech conversion at a server and transmitting the converted speech to a terminal device, as applied to Claim 1. Miyashita does specifically suggest the use of an audio output buffer, however, the use of such a buffer is well-known in the audio processing art as is evidenced by Houser:

Step (e) includes buffering received speech files in a buffer of the information appliance, and presenting the buffered speech files through the audio speakers (*Col. 13, Lines 11-31*).

Miyashita and Houser are analogous art because they are from a similar field of endeavor in text-to-speech conversion. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Miyashita with the use of an audio

output buffer in order to provide temporary storage for necessary signal processing before an audio signal is sent to a speaker.

With respect to **Claim 10**, Miyashita teaches the method for performing text-to-speech conversion at a server and transmitting the converted speech to a terminal device, as applied to Claim 1. Miyashita does not teach periodically transmitting and storing of speech files at a local device, however Houser discloses:

Step (d) includes transmitting to the information appliance the files at a periodic interval of time, and step (e) includes storing the transmitted portion of speech files in a memory device of the information appliance (*periodically updating and storing EPG information, Col. 23, Lines 7-37, which includes phonemic data, Col. 29, Lines 23-49*).

Miyashita and Houser are analogous art because they are from a similar field of endeavor in text-to-speech conversion. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Miyashita with the means for periodically transmitting and storing of EPG speech files at a local device as taught by Houser in order to ensure that device speech data is up-to-date and accurate (*Houser, Col. 23, Lines 30-34*).

7. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita et al in view of Cannon et al (*U.S. Patent: 6,510,209*).

With respect to **Claim 9**, Miyashita teaches the method for performing text-to-speech conversion at a server and transmitting the converted speech to a terminal device, as applied to Claim 1. Miyashita does not teach presenting set-up configuration prompts to a user and

implementing a predetermined input time period after issuing such a prompt, however Cannon discloses:

(f) Presenting set-up configurations sequentially through the audio speaker (*Fig. 4, Element 412*);

(g) Pausing the audio presented in step (f) between each set-up configuration (*waiting a predetermined time period for an input command, Col. 6, Lines 4-15*); and

(h) Waiting a predetermined time period during each pause to receive an input command (*waiting a predetermined time period for an input command, Col. 6, Lines 4-15*).

Miyashita and Cannon are analogous art because they are from a similar field of endeavor in network-enabled device control. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Miyashita with the use of set-up configuration prompts and a predetermined time period for inputting a configuration command in order to allow a user to conveniently configure a device without from a remote location (*Cannon, Col. 1, Line 66- Col. 2, Line 2*) while only accepting commands for a predetermined time period to prevent an unintended input from being improperly recognized as a command.

8. **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita et al in view of Hong et al, and further in view of Houser et al.

With respect to **Claim 12**, Miyashita in view of Hong teaches the method for performing EPG text-to-speech conversion at a server and transmitting the converted EPG speech data to a

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terminal device, as applied to Claim 11. Miyashita in view of Hong does not teach periodically transmitting EPG speech data, however Houser discloses:

Receiving the EPG audio data at periodic time intervals (*periodically updating and storing EPG information, Col. 23, Lines 7-37, which includes phonemic data, Col. 29, Lines 23-49*).

Miyashita, Hong, and Houser are analogous art because they are from a similar field of endeavor in audio signal processing. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Miyashita in view of Hong with the means for periodically transmitting and storing of EPG speech files at a local device as taught by Houser in order to ensure that device EPG speech data is up-to-date and accurate (*Houser, Col. 23, Lines 30-34*).

9. **Claims 15-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Houser et al in view of Hong et al.

With respect to **Claim 15**, Houser discloses:

A memory device (*EPG information storage means, Col. 23, Lines 7-37*);

A modem adapted to connect to a network (*Col. 11, Lines 7-31*);

A processor coupled to the modem for (a) communicating on the network, (b) receiving speech files from the network, and (c) storing the speech files in the memory device (*periodically updating and storing EPG information downloaded from an ISP, Col. 23, Lines 7-37, which includes phonemic data, Col. 29, Lines 23-49*);

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A receiver for accepting input commands from a remote control (*remote control for transmitting commands to be received by a control device, Col. 17, Lines 39-63, and Fig. 9*);

Houser does not teach sending the downloaded speech data to a speaker for playback, however Hong discloses:

The processor responsive to the input commands accepted by the receiver for (a) extracting a portion of the speech files stored in the memory device and (b) sending the extracted portion of the speech files to the audio speaker (*storing of EPG audio data and audio output upon user request, Col. 7, Lines 1-16*).

Houser and Hong are analogous art because they are from a similar field of endeavor in EPG data processing. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Houser with the method of storing and playing an audio representation of EPG data as taught by Hong to provide illiterate or vision impaired individuals with a means of accessing television program information (*Hong, Col. 2, Lines 40-43*).

With respect to **Claim 16**, Houser additionally discloses:

Server includes a storage device for storing electronic program guide (EPG) text files (EPG information from a server that would require an inherent storage device, Col. 23, Lines 7-37),

A text-to-speech (TTS) synthesizer for converting the EPG text files into EPG speech files, and a transmitter for transmitting the EPG text files and the EPG speech files onto the network (*server utilizing a TTS translator for converting and transmitting EPG speech data, Col. 29, Lines 23-49*); and

The speech files received by the processor include the EPG speech files (*subscriber reception of EPG speech data, Col. 29, Lines 23-49*).

With respect to **Claim 17**, Houser recites:

The processor receives the EPG speech files and the EPG text files from the network (*periodically updating and storing EPG information, Col. 23, Lines 7-37, which includes phonemic data, Col. 29, Lines 23-49*);

The processor formats the EPG text files into a page of text, and the processor provides the page for display on the television monitor (*Fig. 11*);

The receiver receiving an input command which provides an identifier for identifying a location on the page displayed on the television monitor (*cursor position, Col. 25, Lines 52-64*);  
and

Houser does not specifically suggest providing audio program data based upon cursor position, however Hong teaches this limitation with respect to Claim 3.

Houser and Hong are analogous art because they are from a similar field of endeavor in EPG data processing. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Houser with the steps of receiving a page location indication and receiving speech data based upon the location as taught by Hong in order to provide an illiterate or vision impaired individual with program specific audio information (*Hong, Col. 2, Lines 40-43*).

With respect to **Claim 18**, Hong additionally discloses the output of EPG speech data corresponding to grid position as applied to Claim 4.

With respect to **Claim 19**, Hong teaches the EPG grid information acquisition means as applied to Claim 4, which downloads grid information, and more detailed program specific information separately, based upon cursor position.

10. **Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over Houser et al in view of Hong et al, and further in view of Oh.

With respect to **Claim 20**, Houser in view of Hong teaches the device capable of downloading and outputting EPG speech data from a server that utilizes a speech-to-text converter, as applied to Claim 16. Houser in view of Hong does not specifically suggest a plurality of speech synthesizers corresponding to multiple languages, however Oh shows:

Converting the text files into speech files using a first text-to-speech (TTS) synthesizer and a second TTS synthesizer, whereby the first TTS synthesizer and the second TTS synthesizer use different languages (*Fig. 2, Elements 212 and 214*).

Houser, Hong, and Oh are analogous art because they are from a similar field of endeavor in speech signal processing. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Houser in view of Hong with the use of multiple TTS synthesizers corresponding to different language as taught by Oh in order to provide text-to-speech synthesis for text that appears in multiple languages (*Oh, Col. 1, Lines 49-52*).

11. **Claim 21** is rejected under 35 U.S.C. 103(a) as being unpatentable over Houser et al in view of Hong et al, and further in view of Miyashita et al.

With respect to **Claim 21**, Houser in view of Hong teaches the device capable of downloading and outputting EPG speech data from a server that utilizes a speech-to-text converter, as applied to Claim 16. Houser in view of Hong does not specifically suggest the ability to select a plurality of voice personalities, however, Miyashita et al teaches this limitation with respect to Claim 6.

Houser, Hong, and Miyashita are analogous art because they are from a similar field of endeavor in audio signal processing. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Houser in view of Hong with the ability to select from a plurality of output voices as taught by Miyashita in order to provide user personalization in which a user can identify program based on a voice output type.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Naimpally (*U.S. Patent: 6,020,880*)- teaches a method of accessing EPG data over a network that utilizes text-to-audio conversion.
- Davis et al (*U.S. Patent: 6,330,537*)- discloses a system capable of providing an audio output of EPG data through the use of speech synthesis.
- Chern et al (*U.S. Patent: 6,381,465*)- teaches a server that allows a user to request news information, which is supplied using TTS synthesis.



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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (703) 305-8669 and email is James.Wozniak@uspto.gov. The examiner can normally be reached on Mondays-Fridays, 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached at (703) 305-4827. The fax/phone number for the Technology Center 2600 where this application is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology center receptionist whose telephone number is (703) 306-0377.

James S. Wozniak  
12/9/2004



DAVID L. OMETZ  
PRIMARY EXAMINER